

REMARKS

New claims 20-31 have been added. The new claims are supported by the originally-filed application by exemplary embodiments of the invention described at, for example, pgs. 6-7. Claims 11-16 and 18-19 are cancelled. Claims 1-10, 17 and 20-31 remain in the application. Reconsideration of the application in view of the amendments and the remarks to follow is requested.

Claims 1, 3-6, 11-16 and 17-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by Komoriya et al. (5,025,284). Claims 2 and 7-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Komoriya et al.

Respectfully, regarding claims 17-19, the Examiner did not point to specific teachings of the art of record to address the limitations of claims 17-19, and therefore, the finality of the present office action (paper no. 16) is improper and should be withdrawn.

Regarding the rejection against claim 1, such claim is amended to recite the limitation presented in claim 18 (now cancelled), and as amended, recites the at least two inert gases are devoid of oxygen. The art of record, singularly or in any combination, fails to teach or suggest this positively recited limitation of claim 1. The Examiner is respectfully reminded that regarding rejections under 35 U.S.C. §102, the PTO and Federal Circuit provide that §102 anticipation requires that *each and every element* of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); MPEP §2131 (8th ed.). The corollary of this rule is that the absence

from a cited §102 reference of any claimed element negates the anticipation. *Kloster Speedsteel AB, et al. v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Similarly, regarding obviousness rejections, the MPEP states that to establish *prima facie* obviousness of a claimed invention, all of the claimed limitations must be taught or suggested by the prior art. MPEP §2143.03 (8th edition) *citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” MPEP §2143.03 (8th edition) *citing In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Further, all such elements must be shown to be suggested by the prior art when making a rejection based upon obviousness under 35 U.S.C. §103(a). *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1987). Accordingly, for a proper anticipation and obviousness rejection to be presented, each positively recited limitation of the claims much be considered and shown to be taught by the art of record.

The art of record fails to teach or suggest the at least two inert gases are devoid of oxygen as positively recited in claim 1. Komoriya teaches two embodiments wherein specific gas compositions are disclosed. One embodiment includes introducing nitrogen and oxygen into tube 9 (col. 6, lines 20-37). The other embodiment teaches that in addition to nitrogen and oxygen (col. 6, Ins. 64-68), a list of gases are provided wherein three gases are used: one gas always being air, a second gas having a large refractive index and a third gas

having a small refractive index (col. 6, Ins. 64-68 to col. 7, Ins. 1-50; Table 1). One skilled in the art understands that air includes nitrogen and oxygen as the main constituents of the composition. Accordingly, the embodiments disclosed by Komoriya always includes oxygen. In no fair or reasonable interpretation does Komoriya teach or suggest the at least two inert gases are devoid of oxygen as recited in claim 1. Since Komoriya fails to teach or suggest a positively recited limitation of claim 1, claim 1 is allowable over Komoriya as being novel and unobvious, pursuant to the above authority.

Claims 2-10 and 17 depend from independent claim 1, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

Regarding the rejection of claim 7, such claim recites krypton is used as inert gas. Komoriya fails to recite krypton once in the entire document, and an electronic search of the reference confirms that this gas is not recited. The Examiner is respectfully reminded that “[a] prior patent must be considered in its entirety, i.e., as a *whole*, including portions that would lead away from the invention.” *Panduit Corp. v. Dennison Manufacturing Co.*, 810 F.2d 1561, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987) (citations omitted). In no fair or reasonable interpretation does Komoriya teach or suggest krypton is used as inert gas as positively recited by claim 7. Therefore, claim 7 is allowable.

Regarding the rejection of claim 8, such claim recites xenon is used as inert gas. Komoriya fails to recite xenon once in the entire document, and an

electronic search of the reference confirms that this gas is not recited. In no fair or reasonable interpretation does Komoriya teach or suggest xenon is used as inert gas as positively recited by claim 8. Therefore, pursuant to the above authority, claim 8 is allowable.

Regarding the rejection of claim 9, such claim recites nitrogen in a volumetric fraction of 95 to 99.5% and helium in a volumetric fraction of 0.5 to 5% are used. The Examiner correctly states Komoriya does not teach this limitation, and relies on case law decided in 1955 (*In re Aller, Lacey, and Hall*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955) to allegedly provide the missing teaching of Komoriya (pg. 5 of paper no. 16). The Examiner alleges this limitation of claim 9 is obvious alleging that *Aller* holds that discovering optimum or workable ranges involves only routine skill in the art (stated as "routine experimentation" in *Aller*, 220 F.2d, at pg. 456, 105 USPQ at pg. 235).

However, the CCPA court revisited this issue and referred to the *Aller* case 25 years later in disfavor wherein the Solicitor and the Board, relying on *Aller*, had "taken the position that controlling the degree of conversion to optimize the acid-aldehyde ratio would have been obvious" *In re Yates*, 663 F.2d 1054, 211 USPQ 1149, 1151 n.4 (CCPA 1981). The *Yates* court reversed the Board and commented on the reliance of *Aller* as problematic, stating, "The problem, however, with such 'rules of patentability' (and the ever-lengthening list of exceptions which they engender) is that they tend to becloud the ultimate legal issue—obviousness—and exalt the formal exercise of squeezing new factual

situations into preestablished pigeonholes. Additionally, the emphasis upon routine experimentation is contrary to the last sentence of section 103". *In re Yates*, 211 USPQ at 1151 n.4 (CCPA 1981) (emphasis added). In view of the *Yates* decision, Applicant submits that *Aller* is an improper case for reliance to allegedly teach obviousness of ranges as involving only routine skill in the art or "routine experimentation". Therefore, the claim 9 recitation to the nitrogen in a volumetric fraction of 95 to 99.5% and helium in a volumetric fraction of 0.5 to 5% are used is not obvious under *Aller*, and therefore, claim 9 is allowable.

Regarding the rejection of claim 10, such claim recites helium in a volumetric fraction of 1.1 to 1.3, preferably 1.2% is used. The Examiner correctly states Komoriya does not teach this limitation, and relies *In re Aller, Lacey, and Hall*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955) to allegedly provide the missing teaching of Komoriya (pg. 5 of paper no. 16). As stated previously, Applicant submits that *Aller* is an improper case for reliance to allegedly teach ranges as being obvious, and therefore, the recitation to helium in a volumetric fraction of 1.1 to 1.3% is not obvious. The obviousness rejection against claim 10 based upon the improper reliance of *Aller* must fail, and therefore, claim 10 is allowable.

Regarding the rejection of claim 17, such claim recites at least two inert gases comprises only inert gases. Komoriya teaches two embodiments wherein specific gas compositions are disclosed. One embodiment includes introducing nitrogen and oxygen into tube 9 (col. 6, lines 20-37). The other embodiment

teaches that in addition to nitrogen and oxygen (col. 6, Ins. 64-68), at least three gases are used, wherein one gas is always air, a second gas has a large refractive index and a third gas has a small refractive index (col. 7, Ins. 1-50; Table 1). One skilled in the art understands that air includes nitrogen and oxygen as the main constituents of the composition. Accordingly, the embodiments disclosed by Komoriya includes oxygen, and one skilled in the art understands that oxygen is not an inert gas. In no fair or reasonable interpretation does Komoriya teach or suggest at least two inert gases comprises only inert gases as positively recited by claim 17. Therefore, claim 17 is allowable.

This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

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